

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-33 are presently active; Claims 1, 12-14, and 25-27 have been presently amended, and Claims 28-33 have been added by way of this amendment.

In the outstanding Office Action, Claims 1-11, 13-14, and 20-27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Seta (U.S. Pat. No. 6,430,993) and in view of Shimizu (U.S. Pat. No. 6,867,787). Claims 12 and 15-19 were objected to for being dependent from a rejected base claim but would be allowable if rewritten in independent form to include the limitations of the base claim and any intervening claims.

Firstly, Applicants acknowledge with appreciation the indication of allowable subject matter in Claims 12 and 15-19.

Secondly, briefly recapitulating the present invention, a generalized model is 1) generalized with respect to at least configuration of a configuration, a structure, and a mechanism, of the object, and 2) is specialized with respect to a function of the object. As further defined in the independent claims, the present invention lets the user enter data using the input device in order to define a specialized model which is constructed as a numerical analysis model for the object by specializing the displayed generalized model with respect to the at least configuration thereof. As further defined in the independent claims, the performance of the object is mechanically analyzed, on the basis of 1) the specialized model defined by the data entered by the user in association with the displayed item, 2) a numerical analysis approach predetermined in accordance with the function of the object, and 3) a numerical analysis condition determined by the user or predetermined as a standard condition.

Regarding Seta, Seta discloses a method of designing a tire including:

a) an initial-model construction processing step including construction of a tire model to incorporate the draft design the (such as the change of the shape, structure, materials, and pattern of the tire) of the tire to be designed into a model in numerical analysis (i.e., a basic model of the tire), as well as a fluid model and a road surface model for evaluating tire performance, and so on (See col. 41, line 65-col. 42, line 4 of the patent publication, which explains Step S200 in Fig. 35, in particular);

b) determining an objective function OBJ representing a physical quantity for evaluating tire performance, a constraint G for constraining the cross-sectional shape of the tire, and a design variable determining the cross-sectional shape of the tire (See col. 45, lines 29-35 of the patent publication, which explains Step S202 in Fig. 35, in particular),

c) an initial tire-performance estimation processing step (See col. 46, lines 19-33 of the patent publication, which explains Step 5204 in Fig. 35, in particular);

d) calculating an initial value OBJ₀ of the objective function OBJ and an initial value G₀ of the constraint G when the design variable r_i is at an initial value r_0 (See col. 50, lines 16-20 of the patent publication, which explains Step §206 in Fig. 35, in particular);

e) changing the design variable r_i by Δr_i so as to change the basic model of the tire (See col. 50 lines 21-22 of the patent publication, which explains Step §208 in Fig. 35, in particular); and

f) determining a corrected model of the tire (See col. 50, lines 22-50 of the patent publication, which explains Step §210 in Fig. 35, in particular).

Accordingly, Seta discloses pre-assigning a numerical analysis approach (i.e., an FEM) to a tire model. Seta, however, fails to disclose or suggest pre-assigning various types of numerical analysis approaches to a tire model *in accordance with a function* to be achieved by the tire model.

In contrast to Seta, the present invention as discussed above is directed to a technique of mechanically analyzing the performance of an object by a numerical analysis approach and a numerical analysis condition based on a specialized model which has been specialized by data entered by the user using a generalized model. The present invention is therefore distinct from Seta by this feature in which the numerical analysis approach *has been predetermined in accordance with the function of the object*.

Regarding Shimizu, Shimizu discloses a technique of generating a title image in response to the user's designation, and displaying the generated title image onto a video program in superposition. More specifically, Shimizu discloses a technique of:

- a) upon selection of a character in response to a user designation through input means from a plurality of characters which are presented to the user through the input means, transforming the selected character into a three-dimensional form; and
- b) in response to a user designation through the input means, displaying the transformed character on display means.

Accordingly, Shimizu discloses a step of displaying an entry field for allowing the user to enter data defining an object to be displayed on the display screen. For visual information about the entry field, see the right-hand side of Fig. 3.

However, what Shimizu discloses is a technique pertaining to a technical field different from that to which the claimed invention of the present application pertains. As such, one of ordinary skill in the art of the design would not have been motivated at the time of the invention to adapt measures from the video title generating program of Shimizu et al. in the tire modeling estimator of Seta. Accordingly, combining Seta and Shimizu is improper because neither reference provides a suggestion or motivation to combine these references in a manner that would produce the claimed invention.

Furthermore, like Seta, Shimizu fails to disclose or suggest the aforementioned feature in which the numerical analysis approach has been predetermined in accordance with the function of the object. Thus, even an improper combination of Seta and Shimizu would not produce the claimed invention.

M.P.E.P. § 2143 requires for a *prima facie* case of obviousness that the prior art reference (or references when combined) must teach or suggest all the claim limitations. M.P.E.P. § 2143 requires for a *prima facie* case of obviousness that there must be some

suggestion or motivation, either in the references or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference.

With no disclosure or suggestion of at least the above-noted feature, it is respectfully submitted that independent Claims 1, 13, 14, and 25-27 and the claims dependent therefrom patentably define over the applied prior art.

New Claims 28-33 are added, defining that the generalized model and the function of the object bear a one-to-one correspondence, which enhances distinction between the claimed invention and the cited references.

Lastly, in the Office Action Summary, the Examiner did not acknowledge his receipt of certified copies of the priority of documents for this application, although these documents were submitted to the PTO on September 28, 2001. Acknowledgement of these documents in the next Office Action is requested.

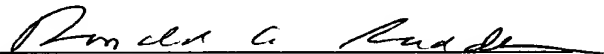
Consequently, in view of the present amendment and in light of the above discussions, the outstanding grounds for rejection are believed to have been overcome. The application as amended herewith is believed to be in condition for formal allowance. An early and favorable action to that effect is respectfully requested.

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